

the Weisner formation, which has a thickness of several thousand feet. The explanation offered for these sinks is that the beds in which they occur have been faulted over beds of limestone, and the material which originally occupied the depressions has fallen into underground channels through which it was carried off by flowing water.

(2) Mr. J. E. Spurr: 'Structure of the Basin Ranges.'

This paper describes the structure of many hitherto unstudied ranges in southern Nevada. The general structure is a series of open regular folds, with general north and south axes, accompanied by occasional parallel and transverse faults. Folding and faulting have gone on continuously since the region was upheaved at the close of the Jurassic. The present mountains owe their forms chiefly to erosion, which has been in progress, synchronously with the folding and faulting, since Jurassic time. The more common types are anticlinal ridges and synclinal valleys. The mountains are the compound result of erosion on rocks upheaved by these compound movements.

F. L. RANSOME,
DAVID WHITE,
Secretaries.

NEW YORK ACADEMY OF SCIENCES.

SECTION OF GEOLOGY AND MINERALOGY.

At the meeting on January 15, 1900, with Mr. G. F. Kunz in the chair, there were twenty persons present.

A report was presented by Professor J. J. Stevenson in behalf of the committee appointed November 20, 1899, in reference to the death of Sir William Dawson, of Montreal. On motion by Professor D. S. Martin, the report was adopted and recommended to the Council for printing.

The Chairman called attention to the coming meeting this year, in Paris, of the Eighth Session of the International Geological Congress, described the proposed excursions, and suggested the earnest coöperation of the Section by delegates, contribution of papers and financial aid. On motion by Professor J. F. Kemp, the matter of the representation of the Academy at

the International Congress was referred to the Council for action.

A paper was read by Professor F. B. Peck 'On Serpentine and Talc in the Vicinity of Easton, Pennsylvania,' with abundant illustrations by specimens of rocks, diagrams and lantern views.

In the subsequent discussion Professor Kemp stated that, in the talc deposits on the west side of the Adirondacks, described by Professor Smyth, the derivation of the talc had been attributed to the magnesium limestone or intrusion of a magnesium silicate rock.

Professor Peck replied that he considered the tremolite rock to be due to the alteration of a siliceous dolomite; the talc, possibly to the interchange of silica from the pre-Cambrian gneisses and magnesia from the adjacent dolomite limestone.

The serpentine and 'viridolite' had indeed been subjected to much shearing and fracture, but had been solidly re-cemented, so that they could be quarried out in large blocks, free from cracks—sometimes of twenty tons weight, in the case of the 'viridolite.'

Professor J. J. Stevenson then discussed 'C. E. Bertrand's Theory respecting the Origin of Certain Coals.'

Mr. F. E. Lloyd remarked that the cells of algæ, to whose accumulation Bertrand and Rénaud mainly attributed the formation of these coals, are exceedingly delicate and often mucilaginous. Those of *sphagnum* are much thicker, solid and woody, and yet a large quantity of this is required to produce much deposit of carbonaceous matter in swamps.

The Chairman inquired whether freezing or the introduction of silty waters might cause the precipitation of ulmic acid referred to by these authors.

Professor Stevenson stated that ulmic acid so precipitated would tend to carry down suspended matters and to clear the waters.

A paper by Mr. H. Ries was then read, 'Note on the Occurrence of Allanite in the Yosemite Valley, California.'

While in the Yosemite Valley in September, 1899, my attention was attracted by a black, coaly-looking mineral in the pegmatite veins on the northwestern side of the Valley. On closer

inspection the mineral proved to be allanite, and as it has not yet been recorded from this region, it seems of interest to note the fact.

The rock forming the walls of the Yosemite is a grano-diorite according to Turner (17th Ann. Rep. U. S. G. S., pt. I., p. 710). Traversing this in many directions are veins of pegmatite, which are sometimes straight and unbroken, at others curved, branched, or even broken into. These pegmatite veins are very prominent on the face of El Capitain, and also in the rock forming Eagle Peak. It was in the talus at the foot of the latter that the allanite was found, and while the mineral was at times abundant in the pegmatite blocks, still none of it was noticed in the grano-diorite. In only one instance was a distinctly bounded individual found, and on this a combination of orthopinacoid and base were recognizable. The other specimens were irregularly bounded grains that varied from a sixteenth to a quarter of an inch in diameter.

In addition to the quartz, muscovite and orthoclase present in the pegmatite, there were a number of radiating masses of epidote, which were evidently of primary origin; but in two instances the epidote occurred as a coating on hornblende and then seemed to be secondary. None was found in association with the allanite.

In conclusion, it may be said that it is interesting to find that allanite is evidently not the rare mineral that it was formerly considered to be, and that a careful watch is beginning to show its presence at many localities in the United States.

ALEXIS A. JULIEN,
Secretary of Section.

ONONDAGA ACADEMY OF SCIENCE.

At the January meeting the following officers were elected: *President*, John Van Dуйn; *Vice-President*, J. D. Wilson; *Recording Secretary*, E. N. Pattee; *Corresponding Secretary*, H. W. Britcher; *Treasurer*, Miss L. W. Roberts; *Librarian*, Mrs. L. L. Goodrich; *Councillors*, G. A. Dakin, H. A. Peck and W. M. Beauchamp.

The annual report of the Geological Section showed that several investigations of local problems are being carried on and that some have been already completed during the year.

The report of the Zoological Section noted the occurrence within the county during the past year of the Bohemian wax wing, *Ampelis garrulus*, the jumping mouse, *Zapus hudsonius* and the hairy-tailed mole, *Parascalops breweri*. Additional localities were indicated for planaria, bryozoa and hydra. During the year fifty moths were taken, thus bringing the number of Lepidoptera of the county to over 600.

The report of the Botanical Section added the following plank to the county list: *Hyssopus officinalis*, *Oenanthe anthelminticum* and *Polygonum lapathifolium* with new stations for *Crepis virens*, *Glaucium glaucium* and *Scolopendrium*.

At the January meeting of the Geological Section, Professor E. N. Pattee reported on the progress of the investigations of the iron compounds of the county. The chief sources of these compounds are the red shales of the Salina formation, yielding small scales and flakes of hæmatite, the Corniferous, yielding crystals of pyrite and the Oriskany sandstone, yielding from one to five per cent. of iron, the color of the stone being, however, no index to the amount of iron, existing as a cement, which the rock contains.

H. W. BRITCHER,
Corresponding Secretary.

THE TEXAS ACADEMY OF SCIENCE.

DURING the last quarter of 1899 regular meetings of the Texas Academy of Science were held in the chemical lecture room of the State University on the second Friday evening of each month.

On October 13th, after a proper tribute to the worth and work of the late Dr. W. W. Norman, Professor of Animal Biology in the University and one of the most active members of the Academy, in which Messrs. Bray, Harper, Garrison, Sutton and others participated, Dr. Frederic W. Simonds, the incoming president, read his inaugural address, 'From the Standpoint of a Man of Science,' in which he made a vigorous protest against sham in all things, but especially in science, and an earnest effort to explain many of the popular misunderstandings of science and misconceptions concerning men of science and their work.

At the October meeting, Professor W. S.